(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

Rec'd PCT/PTO 14 MAR 2005

(19) World Intellectual Property Organization International Bureau

ZIPO-OMPI-

(43) International Publication Date 25 March 2004 (25.03.2004)

PCT

(10) International Publication Number WO 2004/025093 A1

(51) International Patent Classification⁷: 3/28, 3/035, 3/08, F02B 1/12

F01N 3/20,

(21) International Application Number:

PCT/GB2003/004002

(22) International Filing Date:

15 September 2003 (15.09.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0221228.0

13 September 2002 (13.09.2002) GB

0303660.5 18 February 2003 (18.02.2003)

(71) Applicant (for all designated States except US): JOHN-SON MATTHEY PUBLIC LIMITED COMPANY

SON MATTHEY PUBLIC LIMITED COMPANY [GB/GB]; 2-4 Cockspur Street, Trafalgar Square, London SW1 5BQ (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): PHILLIPS, Paul, Richard [GB/GB]; 71 Redwing Rise, Royston SG8 7XU (GB). TWIGG, Martyn, Vincent [GB/GB]; 108 Ermine Street, Caxton, Cambridge CB3 8PQ (GB). (74) Agent: NUNN, Andrew, Dominic; Johnson Matthey Technology Centre, Blounts Court, Sonning Common, Reading RG4 9NH (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMPRESSION IGNITION ENGINE AND EXHAUST SYSTEM THEREFOR

(57) Abstract: A compression ignition engine operable in a first, normal running mode and a second mode producing exhaust gas comprising an increased level of carbon monoxide (CO) relative to the first mode and means when in use to switch engine operation between the two modes, which engine comprising an exhaust system comprising a supported palladium (Pd) catalyst associated with at least one base metal promoter and an optionally supported platinum (Pt) catalyst associated with and/or downstream of the Pd catalyst wherein CO is oxidised by the supported Pd catalyst during second mode operation.